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Callionymus ogilbyi, a New Species of Eastern Australian Dragonets, with a Redescription of *Callionymus scaber* McCulloch (Teleostei: Callionymidae)

By Ronald Fricke, Stuttgart

With 3 figures and 1 table

Summary

Callionymus ogilbyi n. sp. from eastern Australia (southern Queensland, northern New South Wales) is described on the basis of 15 specimens. The new species is possibly identical with *Callionymus affinis* Ogilby, 1910, a specific name that is permanently invalid being a primary homonym of *Callionymus affinis* Regan, 1908. *Callionymus ogilbyi* n. sp. is characterized within the subgenus *Callionymus* (*Calliurichthys*) by having 7–12 small antrorse serrae dorsally on the preopercular spine; a high first dorsal fin in males bearing filaments on all four spines, the first dorsal fin in the male black, with oblique white streaks; with the throat plain dark brown in females; and in males with the distal five-sixths of the anal fin black, in females with the distal two-thirds of the anal fin black.

Callionymus scaber McCulloch, 1926 is redescribed on the basis of a syntype from Lord Howe Island (AMS I.4079, which is now designated as the lectotype of the species).

Zusammenfassung

Callionymus ogilbyi n. sp. wird aufgrund von 15 Exemplaren aus Ostaustralien (südliches Queensland, nördliches Neusüdwalen) beschrieben. Die neue Art ist wahrscheinlich identisch mit *Callionymus affinis* Ogilby, 1910, einem ungültigen Taxon der Artengruppe, das ein primäres Homonym zu *Callionymus affinis* Regan, 1908 ist. *Callionymus ogilbyi* n. sp. wird innerhalb der Untergattung *Callionymus* (*Calliurichthys*) durch die folgenden Merkmale charakterisiert: 7–12 kleine vorwärts gerichtete Zähne auf der dorsalen Seite des Präoperculardorns; Männchen mit einer hohen ersten Rückenflosse und Filamenten an allen 4 Stachelstrahlen; erste Rückenflosse beim Männchen schwarz, mit schrägen weißen Streifen; Kehle beim Weibchen einfarbig dunkelbraun; distale fünf Sechstel der Afterflosse beim Männchen schwarz, distale zwei Drittel der Afterflosse beim Weibchen schwarz.

Callionymus scaber McCulloch, 1926 wird aufgrund eines Syntypus von Lord Howe Island wiederbeschrieben (AMS I.4079; wird in der vorliegenden Arbeit zum Lektotypus des Taxons bestimmt).



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1. Introduction

The dragonets of the family Callionymidae are a group of benthic marine fishes, found in warm and temperate seas from the very shallows to depths of water of at least 800 m. Most species live on soft, sandy or muddy substrates. The two largest genera, *Callionymus* and *Synchiropus*, are distributed nearly circumtropical. The Indo-Pacific species of the family have been revised by FRICKE (1983), who distinguished a total of 82 species of *Callionymus* and 27 species of *Synchiropus*.

A checklist of the Australian Callionymidae was presented by FRICKE (2000: 4–6), who recorded 42 species including 5 new species. FRICKE (2000: 20–24) redescribed *Callionymus scaber* McCulloch, 1926 on the basis of 20 specimens from the Chesterfield Islands/East Coral Sea and New South Wales/Australia; the only remaining syntype (AMS I.4079) was not available during several visits to the Australian Museum Sydney (AMS) between 1992 and 1999.

When visiting the AMS again in November 2000, the author of the present paper was able to examine the remaining syntype of *C. scaber* which had been returned from an extended loan. He found that the specimen was not conspecific with New South Wales materials, and that the identity of *C. scaber* had to be reconsidered. Therefore, the species is redescribed again in the present paper on the basis of the remaining syntype, and the New South Wales material is described as a separate, new species. The status of the Chesterfield Islands specimens remains unclear at the moment as no large males from the area are available to finally determine if they are conspecific with the New South Wales species, the Lord Howe species, or if they represent another, undescribed species.

The checklist of Australian Callionymidae presented by FRICKE (2000: 4–6) is revised in the light of the new findings (Tab. 1).

2. Methods, materials and acknowledgements

Methods: Methods follow FRICKE (1983). The standard length (measured from the middle of the upper lip to the posterior margin of the hypural plate) is abbreviated as *SL*.

Materials: For the present study, fish specimens deposited in the following institutions were examined:

AMS The Australian Museum, Sydney, Australia;

SMNS Staatliches Museum für Naturkunde, Stuttgart, Germany.

Acknowledgements: This study was made possible by the generous assistance of M. KULBICKI, B. RICHER DE FORGES and J. RIVATON (Institut de Recherche pour le Développement, formerly O.R.S.T.O.M., Nouméa, New Caledonia), who sent callionymid fish materials to the author of the present paper and provided valuable information. The following col-

Tab. 1. Revised checklist of Australian Callionymidae. Changes and additions to the list of FRICKE (2000: 4–6) are printed in **bold face**. – States and areas: *ACT* Australian Commonwealth Territory (Jervis Bay); – *CI* Christmas Island; – *CK* Cocos Keeling Islands; *CS* Coral Sea; – *LHI* Lord Howe Island; – *NI* Norfolk Island; – *NT* Northern Territory; – *NSW* New South Wales; – *QLD* Queensland; – *SA* South Australia; – *VIC* Victoria; – *TAS* Tasmania; – *WA* Western Australia.

Species	CAAB Code ¹⁾	Australian States	Reference/description
<i>Anaora tentaculata</i> Gray, 1834	37 427045	WA	FRICKE, 2000
<i>Callionymus afilem</i> Fricke, 2000	37 427008	WA, NT, QLD	FRICKE, 2000
<i>Callionymus annulatus</i> Weber, 1913	37 427016	QLD	FRICKE, 1983
<i>Callionymus australis</i> Fricke, 1983	37 427013	WA	FRICKE, 1983
<i>Callionymus belcheri belcheri</i> Richardson, 1844	37 427011	WA, NT, QLD	FRICKE, 1983
<i>Callionymus bifilum</i> Fricke, 2000	37 427038	WA, NT	FRICKE, 2000
<i>Callionymus brevianalis</i> Fricke, 1983	37 427039	QLD	FRICKE, 1990
<i>Callionymus calcaratus</i> Macleay, 1881	37 427015	WA, SA, VIC, NSW, ACT, LH, NI	FRICKE, 1983
<i>Callionymus corallinus</i> Gilbert, 1905		QLD	FRICKE, 1983
<i>Callionymus delicatulus</i> Smith, 1963	37 427037	WA	FRICKE, 1983
<i>Callionymus draconis</i> NAKABO 1977	37 427017	WA	NAKABO et alii, 1992
<i>Callionymus enneactis</i> Bleeker, 1879	37 427018	WA, NT, QLD	FRICKE, 1983
<i>Callionymus filamentosus</i> Valenciennes in Cuvier & Valenciennes, 1837	37 427040	WA	FRICKE, 1983
<i>Callionymus goodladi</i> (Whitley, 1944)	37 427006	WA	FRICKE, 1983
<i>Callionymus grossi</i> Ogilby, 1910	37 427007	WA, NT, QLD	FRICKE, 1983
<i>Callionymus kailolae</i> Fricke, 2000	37 427041	WA	FRICKE, 2000
<i>Callionymus keeleyi</i> FOWLER, 1941	37 427046	NT	RUSSELL & HOUSTON, 1989
<i>Callionymus leucobranchialis</i> Fowler, 1941		WA, QLD	FRICKE, 2000
<i>Callionymus limiceps</i> Ogilby, 1908	37 427012	QLD, NSW	FRICKE, 1983
<i>Callionymus macdonaldi</i> Ogilby, 1911	37 427023	NT, QLD, NSW	FRICKE, 1983
<i>Callionymus meridionalis</i> Suwardji, 1965	37 427019	WA, NT, QLD	FRICKE, 1983
<i>Callionymus moretonensis</i> Johnson, 1971	37 427003	NT, QLD, NSW	FRICKE, 1983
<i>Callionymus ogilbyi</i> n. sp.		QLD, NSW	present paper

Tab. 1, continued.

Species	CAAB Code ¹	Australian States	Reference/ description
<i>Callionymus pleurostictus</i> Fricke, 1982	37 427003	NT, QLD	FRICKE, 1983
<i>Callionymus russelli</i> Johnson, 1976	37 427022	NT, QLD, NSW	FRICKE, 1983
<i>Callionymus scaber</i> McCulloch, 1926	37 427036	LHI	present paper
<i>Callionymus sphinx</i> FRICKE & HECKELE, 1984	37 427024	NT	FRICKE & HECKELE, 1984
<i>Callionymus sublaevis</i> McCulloch, 1926	37 427010	WA, NT, QLD	FRICKE, 1983
<i>Dactylopus dactylopus</i> (Bennett in Cuvier & Valenciennes, 1837)	37 427005	WA, NT, QLD, NSW	FRICKE, 1983
<i>Diplogrammus goramensis</i> (Bleeker, 1858)	37 427026	CK, WA, QLD, NI	FRICKE, 1983
<i>Diplogrammus xenicus</i> (Jordan & Thompson, 1914)	37 427027	WA	FRICKE, 1983
<i>Synchiropus australis</i> (NAKABO & MCKAY, 1989)	37 427029	QLD, NSW	NAKABO & MCKAY, 1989
<i>Synchiropus calauropomus</i> (Richardson, 1844)	37 427001	QLD, NSW, ACT, VIC, TAS, SA, WA	FRICKE, 1983
<i>Synchiropus claudiae</i> Fricke, 1990	37 427042	QLD	FRICKE, 1990
<i>Synchiropus grandoculis</i> Fricke, 2000	37 427043	WA	FRICKE, 2000
<i>Synchiropus morrisoni</i> (Schultz in Schultz et alii, 1960)	37 427031	WA, QLD	FRICKE, 1983
<i>Synchiropus occidentalis</i> Fricke, 1983	37 427033	WA	FRICKE, 1983
<i>Synchiropus ocellatus</i> (Pallas, 1770)	37 427032	WA, QLD, NSW	FRICKE, 1983
<i>Synchiropus papilio</i> (Günther, 1864)	37 427014	WA, SA, VIC, TAS, ACT, NSW, QLD	FRICKE, 1983
<i>Synchiropus paxtoni</i> Fricke, 2000	37 427044	WA	FRICKE, 2000
<i>Synchiropus phasis</i> (Günther, 1880)	37 427002	WA, SA, VIC, TAS, NSW	FRICKE, 1981
<i>Synchiropus rameus</i> (McCulloch, 1926)	37 427009	WA, NT, QLD, NSW	FRICKE, 1983
<i>Synchiropus splendidus</i> (Herre, 1927)	37 427034	WA, QLD	FRICKE, 1983

¹) Codes for Australian Aquatic Biota; see YEARSLEY, LAST & MORRIS (1997). Additional codes were provided by G. YEARSLEY (personal communication).

leagues gave access to materials under their care, or sent specimens on loan: D. F. HOESE, J. F. LEIS, M. MCGROUTHER, J. PAXTON, S. READER, T. TRNSKI (AMS, Sydney).
This revisionary study was partially supported by grants of the Deutsche Forschungsgemeinschaft (No. FR 775/2–1; No. FR 775/6–1; No. FR 775/14–1; No. FR 775/17–1).

3. Species descriptions

3.1. *Callionymus ogilbyi* n. sp. (Fig. 1) Eastern Australian longtail dragonet

? *Callionymus affinis* Ogilby, 1910: 134–135 (Cape Moreton/Queensland; permanently invalid, homonym of *Callionymus affinis* Regan, 1908).

Callionymus (*Calliurichthys*) *japonicus scaber* (non McCulloch, 1926): FRICKE, 1983: 392–393 (part: southern Queensland).

Callionymus scaber (non McCulloch, 1926): FRICKE, 2000: 5, 20–24, fig. 8 (part: southern Queensland, New South Wales/Australia).

Material

Total: 15 specimens.

Holotype: Australia, New South Wales: AMS I.26229–002, male, 197 mm SL; SE of Evans Head, off Iluka; FRV “Kapala”; 24 May 1988.

Paratypes. Australia, New South Wales: AMS I.26229–000, 1 female, 151.6 mm SL; with the same data as the holotype. – AMS I0.26312–007, 9 specimens; NE of Yamba, 29°25'S 153°30'E, 49–54 m depth; FRV “Kapala”; 22 May 1986. – AMS I.26828–005, 1 specimen; NE of Tweed Heads, 28°06'S 153°48'E – 28°11'S 153°48'E, 112–115 m depth; FRV “Kapala”; 3 June 1978. – AMS I.32120–007, 1 male, 156.7 mm SL, and 1 female, 139.2 mm SL; off Clarence River, 29°20'S 153°34'E – 29°25'S 153°37'E, 67–73 m depth; K. GRAHAM, FRV “Kapala”; 2 May 1990. – AMS I.34028–001, 1 male, 180.7 mm SL, and 1 female, 136.4 mm SL; off Brunswick, 28°22'S 153°39'E – 28°27'S 153°41'E, 47–57 m depth; FRV “Kapala”, K. GRAHAM; 25 May 1991.

Etymology

The new species is named in honour of JOHN DOUGLAS OGILBY (1853–1925) who published important contributions to the knowledge of Australian callionymid fishes.

Diagnosis

A *Callionymus* of the subgenus *Callionymus* (*Calliurichthys*) with a total of 9 rays in the second dorsal fin, 8 rays in the anal fin, 18–20 pectoral fin rays, 7–12 small antrorse serrae dorsally on the preopercular spine (additional to the main tip and an antrorse spine at the base); with a high first dorsal fin in males bearing filaments on all four spines, the first dorsal fin in the male black, with oblique white streaks; with the throat plain dark brown in females; and in males with the distal five-sixths of the anal fin black, in females with the distal two-thirds of the anal fin black.

Description

D₁ IV (IV); D₂ viii,1 (viii,1); A vii,1 (vii,1); P₁ ii,14–15,ii, total 18–19 (ii,14–16,i–ii, total 18–20); P₂ I,5 (I,5); C (i),i,7,ii, (i) ((i), i,7, ii, (i)).

Body elongate and depressed. Head slightly depressed, 5.0 (4.9–5.0) in SL. Eye 3.0 (2.7–3.1) in head. Preorbital length 2.4 (2.4–2.7) in head. Interorbital distance 20.7 (17.8–21.2) in head. Occipital region with 2 rough protuberances on each side, and a rough postorbital area. Maxillary length 3.5 (2.7–3.6) in head. Preopercular spine with a straight main tip, a smooth base, a strong antrorse spine at its base, and 9 (7–12) small serrae on the dorsal margin (Fig. 1, centre). Preopercular spine length 3.1–4.4 in head. Preopercular spine formula $1 \frac{9}{1}$ ($1 \frac{7-12}{1}$). Body depth 10.7 (9.8–11.4) in SL. Body width 5.8 (5.0–5.9) in SL. Urogenital papilla in the male 9.6 (9.8–12.6) in head, in the female 15.9–31.8 in head. Caudal peduncle length 5.4

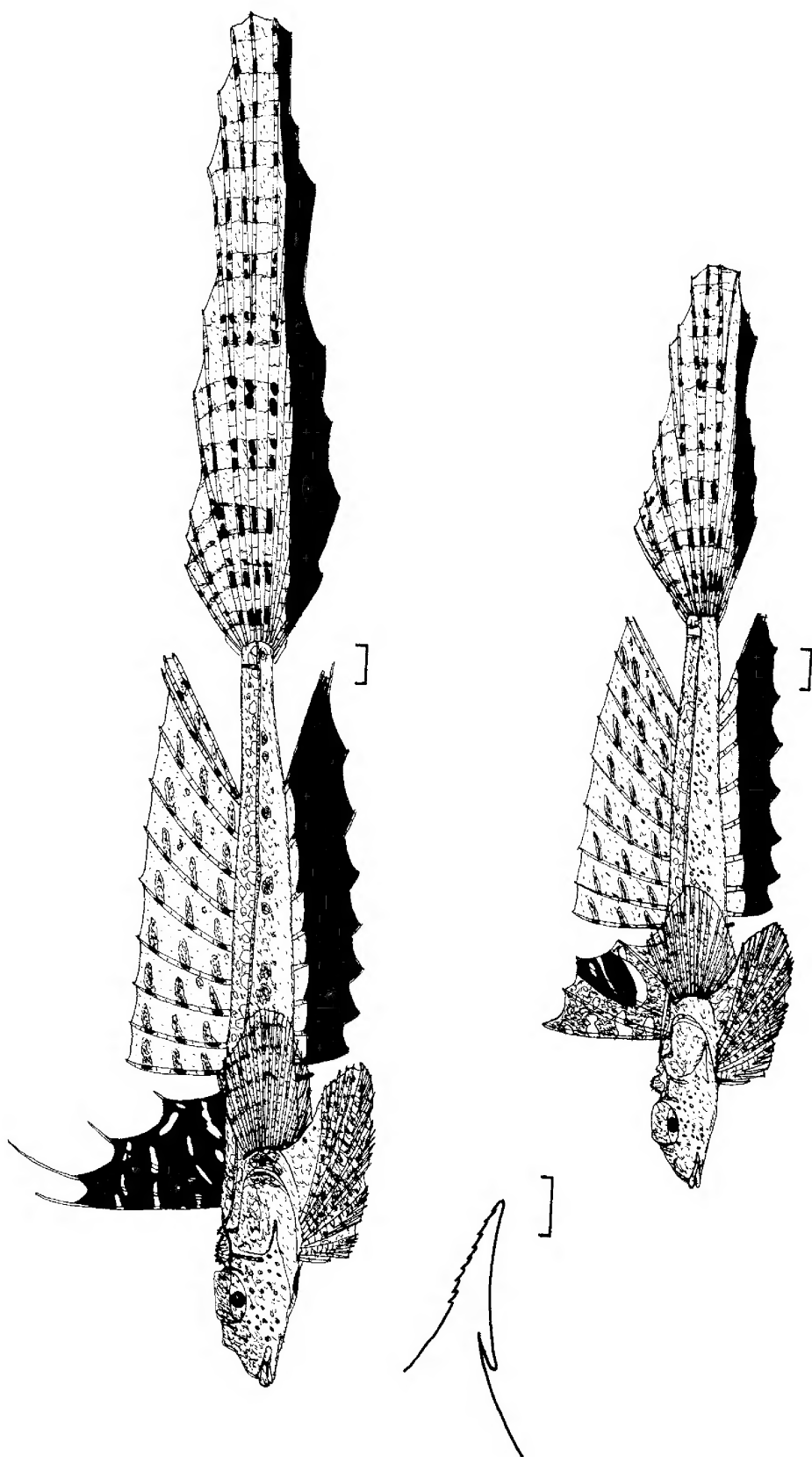


Fig. 1 *Callionymus ogilbyi* n. sp.; AMS I.26229-002, holotype, male, 197 mm SL, Australia, New South Wales, southeast of Evans Head. – *Above*, lateral view (scale: 10 mm); – *centre*, left preopercular spine (scale: 3 mm). – *Below*, AMS I.26229-000, paratype, female, 151.6 mm SL; lateral view (scale: 10 mm).

(5.7–7) in SL. Caudal peduncle depth 16.0 (23.7–26.3) in SL. Maximum observed SL 197.0 mm (male), 151.6 mm (female).

First dorsal fin relatively high in the male, all spines with short filaments, first spine 3.9 (3.8–4.1) in SL, 2nd spine 3.3 (3.4–4.4) in SL, 3rd spine 5.0 (5.0–5.5) in SL, 4th spine 8.4 (7.8–8.5) in SL; in the female lower, spines without filaments, 1st spine 4.7–5.0 in SL, 2nd spine 5.2–5.3 in SL, 3rd spine 5.4–6.2 in SL, 4th spine 6.8–8.8 in SL. Predorsal (1) length 4.2 (4.0–4.3) in SL. Second dorsal fin rays unbranched, the last divided at its base. First ray of second dorsal fin in the male 7.3 (4.9–8.0) in SL, last ray 4.8 (4.2–4.8) in SL; in the female, 1st ray 5.8–6.2 in SL, last ray 4.6–5.3 in SL. Predorsal (2) length 2.4 (2.2–2.3) in SL. Anal fin beginning on a vertical through about 2nd ray of second dorsal fin. Anal fin rays unbranched, the last divided at its base. First anal fin ray in the male 12.6 (9.8–12.0) in SL, last ray 5.8 (5.5–5.9) in SL; 1st ray in the female 9.9–12.3 in SL, last ray 5.6–6.4 in SL. Preanal fin length 2.3 (2.1–2.3) in SL. Pectoral fin reaching to about 2nd anal fin membrane when laid back. Pectoral fin length 5.3 (4.6–5.4) in SL. Prepectoral fin length 3.2 (3.0–3.2) in SL. Pelvic fin reaching to 1st anal fin membrane when laid back. Pelvic fin spine 22.9 (14.2–23.2) in SL; pelvic fin length 3.6 (3.2–3.8) in SL. Prepelvic fin length 5.8 (4.8–5.9) in SL. Caudal fin with the median 4 rays extremely elongate; caudal fin length in the male 1.2 (1.2–1.4) in SL, in the female 1.6–1.7 in SL.

Colour in alcohol: Body dorsally light grey to greyish brown, with rounded whitish and brownish spots; sides of body in males each with a row of brown blotches, arranged in groups of 2–3, below the lateral line. Head greyish brown, with small dark brown spots below the eyes. Throat in the male dark brown, with a central heart-shaped black blotch; plain dark brown in the female.

First dorsal fin the male black, with oblique white streaks; in the female greyish brown, with a large black ocellus distally surrounding the third spine. Second dorsal fin with 3 blackish spots on each ray, and with 3 horizontal grey streaks on each membrane. Males with distal five-sixths of anal fin black, females with distal two-thirds of anal fin black. Lower one-third of caudal fin black, upper two-thirds with about 12 vertical double rows of dark brown spots. Pectoral fin pale, upper half with vertical rows of small blackish spots. Pelvic fin mottled with dark brownish grey.

Sexual dimorphism: Males have a higher first dorsal fin than females, with the spines filamentous, and with whitish oblique stripes on a black background (with an ocellus distally around third spine in females), a longer snout, a longer caudal fin, and a longer urogenital papilla.

Distribution

Southeastern Queensland and New South Wales/Australia, at depths of 47–115 m (Fig. 2).

Relationships

This species is closely related to *Callionymus japonicus* Houttuyn, 1782 (HOUTTUYN, 1782: 312–314, Japan; FRICKE, 1983: 380–392, figs 114–115, part: northern half of distribution range; *C. japonicus japonicus*), and *Callionymus afilum* Fricke, 2000. *Callionymus scaber* differs in the shape, colouration, and presence of 4 filaments in the male's first dorsal fin, and in the broader black area on the anal and cau-

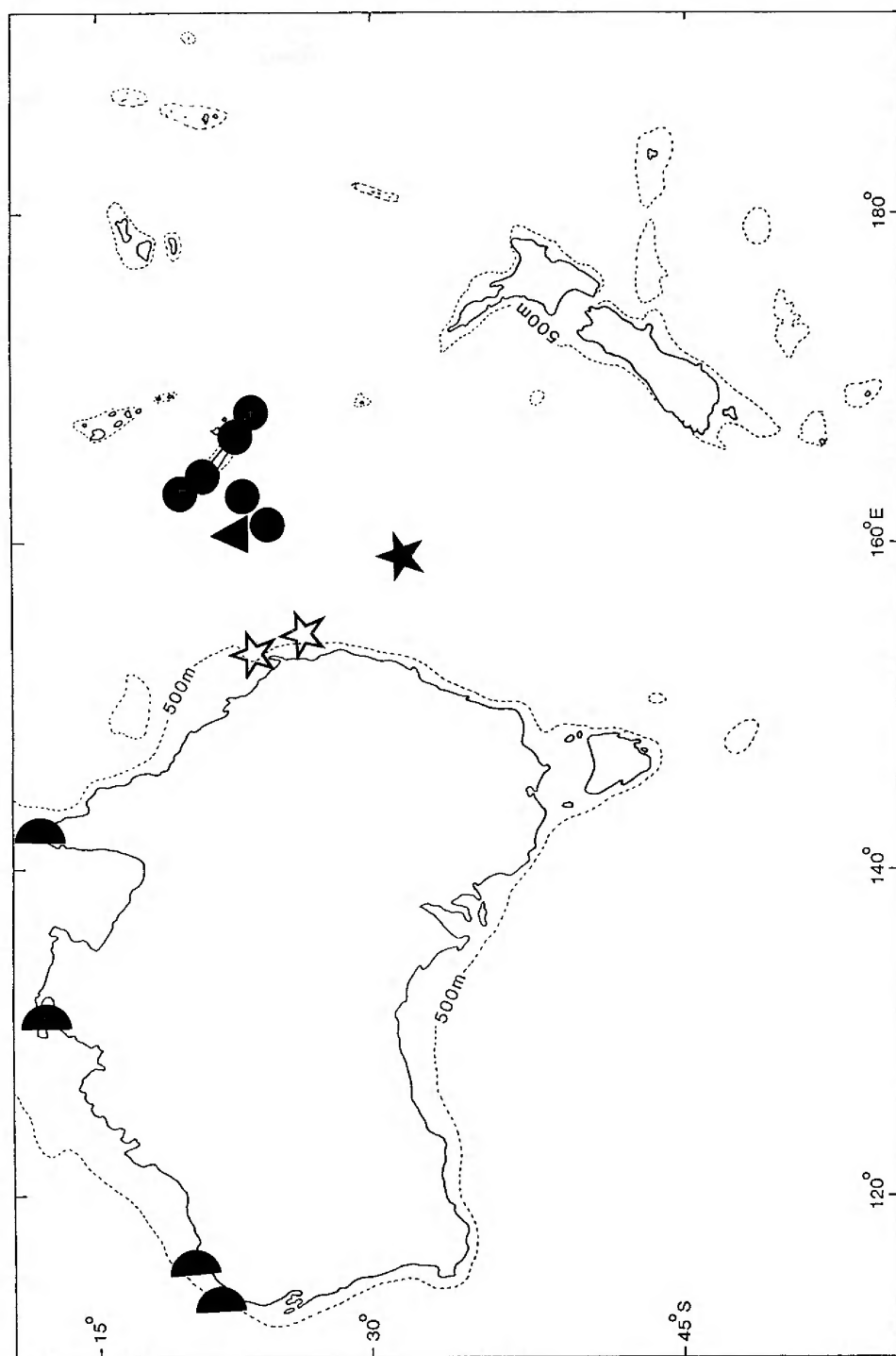


Fig. 2 Geographical distribution of the *Callionymus* (*Calliurichthys*) *japonicus* group in the Southwest Pacific. – *Callionymus afilum* (half circles). – *C. ogilbyi* n. sp. (white stars). – *C. rivatoni* (circles). – *C. scaber* (black star). – *C. sp.* (triangle).

dal fin in both sexes; also in the larger size of the black blotch on the thorax of the male, and the brown area on the thorax of the female.

Remarks

This species was treated by authors as a subspecies of *Callionymus japonicus*. Comparison with New Caledonian and northern Australian materials, however, revealed that *C. japonicus*, *C. afilum*, *C. scaber* and *C. ogilbyi* are separate, though closely related species.

The new species is most probably identical with *Callionymus affinis* Ogilby, 1910, a name which is permanently invalid being a primary homonym of *Callionymus affinis* Regan, 1908. So far, the holotype of *C. affinis* Ogilby, 1910 could not be located; as the original description by OGILBY (1910: 134–135) is relatively brief, the identity with *C. ogilbyi* still needs verification.

3.2. *Callionymus scaber* McCulloch, 1926 (Fig. 3)

Lord Howe longtail dragonet

CAAB Code (Australia): 37 427036

Callionymus, *Calliurichthys*, *japonicus* (non Houttuyn, 1782): McCULLOCH, 1926: 8 (Lord Howe Island).

Callionymus, *Calliurichthys*, *japonicus* var. *scaber* McCulloch, 1926: 197 (Lord Howe Island; 4 syntypes).

Callionymus (*Calliurichthys*) *japonicus scaber*: FRICKE, 1983: 392–393 (part: Lord Howe Island).

Callionymus scaber: YEARSLEY, LAST & MORRIS, 1997: Appendix D (CAAB Code). FRICKE, 2000: 20–24 (part: Lord Howe specimen only).

Material

Total: 1 specimen.

Australia, Lord Howe Island: AMS I.4079, lectotype (designation see below), male, 125.6 mm SL; ETHERIDGE & E. R. WAITE; 1898.

Diagnosis

A *Callionymus* of the subgenus *Callionymus* (*Calliurichthys*) with a total of 9 rays in the second dorsal fin, 8 rays in the anal fin, 20 pectoral fin rays, 7 small antrorse serrae dorsally on the preopercular spine (additional to the main tip and an antrorse spine at the base); with a low first dorsal fin in the male bearing a filament only on

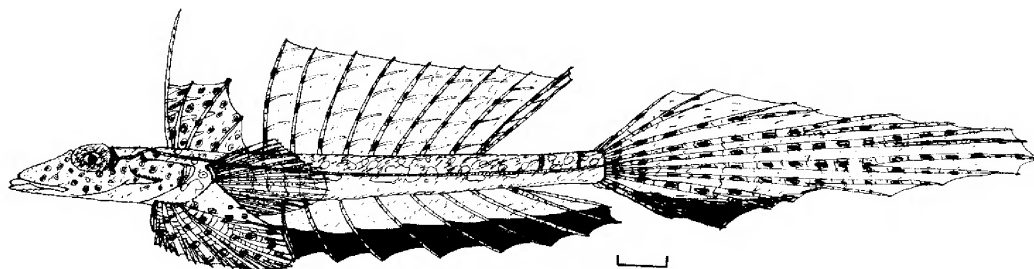


Fig. 3 *Callionymus scaber* McCulloch, 1926; AMS I.4079, lectotype, male, 125.6 mm SL, Lord Howe Island; lateral view. – Scale: 10 mm.

the first spine, the first dorsal fin in the male light, covered with brown spots in regular arrangement; with the thorax white in the male; and in the male with the distal half of the anal fin black.

Description

D₁ IV; D₂ viii,1; A vii,1; P₁ ii,16,ii (total 20); P₂ I,5; C (ii),i,7,ii,(ii).

Body elongate and depressed. Head depressed, its length 4.8 in SL. Eye 3.1 in head. Preorbital length 2.1 in head. Interorbital distance 18.8 in head. Maxillary length 2.3 in head. Preopercular spine length 3.4 in head. Preopercular spine formula $1 \frac{7}{-} 1$. Body depth 12.6 in SL. Body width 6.2 in SL. Caudal peduncle length 6.2 in SL. Caudal peduncle depth 19.6 in SL.

First dorsal fin low in the male, the first spine bearing a filament; length of first spine 4.2 in SL, 2nd spine 8.7 in SL, 3rd spine 7.8 in SL, 4th spine 15.1 in SL. Predorsal (1) length 3.9 in SL. Second dorsal fin rays unbranched, the last divided at its base. Second dorsal fin distally slightly concave in the male. First ray of second dorsal fin in the male 5.0 in SL, 5th ray 5.3 in SL, last ray 4.6 in SL. Predorsal (2) length 2.4 in SL. Anal fin beginning on a vertical through 1st membrane of second dorsal fin. Anal fin rays unbranched, the last divided at its base. First anal fin ray in the male 10.5 in SL, 5th ray 5.6 in SL, last ray 5.1 in SL. Preanal fin length 2.2 in SL. Pectoral fin reaching to base of 2nd anal fin membrane when laid back. Pectoral fin length 5.2 in SL. Prepectoral fin length 3.0 in SL. Pelvic fin reaching to base of 1st anal fin membrane when laid back. Pelvic fin spine 17.0 in SL; pelvic fin length 5.1 in SL. Prepelvic fin length 4.3 in SL. Caudal fin distally elongate, median four rays extended but connected by membranes; caudal fin length 1.4 in SL.

Colour in alcohol. Head and body light brown, belly whitish. Cheeks and dorsal half of head scattered with relatively few brown spots in regular arrangement. Thorax white. Back with irregular brown marblings and white spots. First dorsal fin with short horizontal light streaks on the first and second membranes; all membranes with brown spots. Second dorsal fin rays spotted with brown, membranes with short horizontal light streaks. Distal half of anal fin dark brown. Caudal fin with 16 vertical rows of brown spots; lower membranes dark brown. Pelvic fin scattered with brown spots. Pectoral fin translucent, with few vertical rows of faint brown spots.

Distribution

This species is known only from Lord Howe Island (Fig.2).

Relationships

Callionymus scaber is closely related to *Callionymus japonicus*, *C. afilum*, *C. ogilbyi*, and *C. rivatoni* (distribution of the latter species see Fig.2). Within this group of species, it is characterized by the combination of a filamentous first spine of the first dorsal fin, 2nd to 4th spines not filamentous; head first dorsal and pelvic fins covered with relatively few brown spots in regular arrangement in the male; thorax white in the male; distal half of anal fin dark in the male. The similar species *Callionymus gardineri* Regan, 1908 is distinguished from *C. scaber* in having a longer filament of the male's first spine of the first dorsal fin, the male's anal fin only with the distal margin dark, the male's head covered with very few irregular dark spots.

Remarks

In order to stabilise the usage of the name *Callionymus scaber* McCulloch, 1926, I hereby designate the syntype AMS I.4079 (see Fig. 3) as the **lectotype** of the species.

FRICKE (2000: 20–24) confused this species with *C. ogilbyi*, judging from the original description without having seen any of the syntypes. When the lectotype became accessible, its examination provided evidence that *C. scaber* from Lord Howe Island is different from eastern Australian populations on the specific level.

3.3. *Callionymus* sp.

Callionichtys japonicus: RIVATON, FOURMANOIR, BOURRET & KULBICKI, 1989: 30 (Nouvelle-Calédonie/New Caledonia, in checklist). KULBICKI, RANDALL & RIVATON, 1994: 33 (Chesterfield Islands).

Callionymus scaber (non McCulloch, 1926): FRICKE, 2000: 20–24 (part: Chesterfield Islands material only).

Material

Coral Sea, Chesterfield Islands: SMNS 21224, 1 female, 69.5 mm SL; northeastern lagoon, 19°17'54"S 158°35'30"E, 68 m depth; B. RICHER DE FORGES, R/V "Coriolis", St. CHALCAL CP. 7; 18 July 1984. – SMNS 21230, 1 male, 72.6 mm SL; northeastern lagoon, 19°28'03"S 158°24'23"E, 54 m depth; B. RICHER DE FORGES, Cruise CORAIL 2, St. 125; 29 July 1988. – SMNS 21241, 1 female, 47.7 mm SL; northeastern lagoon, 19°24'58"S 158°21'35"E, 56 m depth; B. RICHER DE FORGES, Cruise CORAIL 2, St. 120; 29 July 1988. – SMNS 21248, 1 female, 56.5 mm SL; 30 km NNE Caye de l'Observatoire 21°13'30"S 158°50'12"E, 66 m depth; B. RICHER DE FORGES; 24 July 1984.

Remarks

So far, only females are known from the Chesterfield Islands; at present, they cannot be assigned to either *C. scaber* or *C. ogilbyi*. More material from the area is needed to determine the taxonomic status of the material.

4. References

- FRICKE, R. (1981): Revision of the genus *Synchiropus* (Teleostei: Callionymidae). – 194 pp.; Braunschweig (J. Cramer).
- (1983): Revision of the Indo-Pacific genera and species of the dragonet family Callionymidae (Teleostei). – X + 774 pp.; Braunschweig (J. Cramer).
 - (1990): A new and a rare species of dragonet (Teleostei: Callionymidae) from New Guinea and the Solomon Islands. – *Stuttgarter Beiträge zur Naturkunde (A)*, **446**: 1–13; Stuttgart.
 - (2000): Callionymidae of New Caledonia, with remarks on related species and descriptions of 10 new species from New Caledonia, Australia, New Guinea, and Hawaii (Teleostei). – *Stuttgarter Beiträge zur Naturkunde (A)*, **617**: 1–81; Stuttgart.
- FRICKE, R. & U. HECKELE (1984): A new dragonet (Callionymidae) of the genus *Callionymus* from Australia. – *Japanese Journal of Ichthyology*, **30** (4): 368–370; Tokyo.
- HOULTUYN, M. (1782): Beschrijving van eenige Japanische visschen en andere zeeschenpse-len. – *Verhandelingen van de Hollandsche Maatschappij van Wetenschappen*, **20** (2): 311–350; Haarlem.
- KULBICKI, M., J. E. RANDALL & J. RIVATON (1994): Checklist of the fishes of the Chesterfield Islands (Coral Sea). – *Micronesica*, **27** (1–2): 1–43; Agana/Guam.
- MCCULLOCH, A. R. (1926): Report on some fishes obtained by F.I.S. "Endeavour" on the coasts of Queensland, New South Wales, Victoria, Tasmania, and southwestern Austra-

- lia; 5. – Biological Results of F.I.S. „Endeavour“ 1909–1914, **15** (4): 157–216, pls 43–56; Sydney.
- NAKABO, T., H. IKEDA & C. ARAGA (1992): The female of a rare dragonet (Teleostei: Callionymidae) from Japan, with comments on its synonymy. – Publications of the Seto Marine Biological Laboratory, **35** (4–5): 289–293; Seto/Japan.
- NAKABO, T. & R. J. MCKAY (1989): A new species of the genus *Foetorepus* (Pisces: Callionymidae) from Queensland. – Memoirs of the Queensland Museum, **27** (2): 563–565; Brisbane.
- OGILBY, J. D. (1910): On some new fishes from the Queensland coast. – Endeavour Series, **1**; pp. 85–139; Brisbane (privately published).
- RIVATON, J., P. FOURMANOIR, P. BOURRET & M. KULBICKI (1989): Catalogue des poissons de Nouvelle-Calédonie. Checklist of fishes from New Caledonia. Rapport provisoire. – Catalogues, Sciences de la Mer, Biologie Marine, ORSTOM, Centre de Nouméa: I–III + 1–170; Nouméa.
- RUSSELL, B. C. & W. HOUSTON (1989): Offshore fishes of the Arafura Sea. – The Beagle, **6** (1): 69–84; Darwin.
- YEARSLEY, G. J., P. R. LAST & G. B. MORRIS (1997): Codes for Australian Aquatic Biota (CAAB): an upgraded and expanded species coding system for Australian fisheries databases. – CSIRO Marine Laboratory Report, **224**: I–V + 1–16 + 1–109; Hobart.

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